

**Case Study****APPLICATION OF LEECH (JALAUKA) THERAPY ON THE MANAGEMENT OF VATARAKTA (GOUT)****Bera Pabitra Kumar**

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**KEYWORDS:** *Vatarakta*, Gout, Leech therapy, Pain.**ABSTRACT**

*Vatarakta* is one type of *Vatavyadhi* caused due to *Vata* and *Rakta*. Here *Vata* and *Rakta* both are aggravated and vitiated by their own etiological factors and ultimately *Vayu* gets aggravated by vitiated *Rakta*. This complete process is known as *Vatarakta*. This disease can be compared with Gout in Modern. It is the commonest inflammatory joint disorder in which mainly small joints become swollen, tender, painful and stiff. Leech is one of the best treatment for *Vatarakta*. In this Study 10 cases of *Vatarakta* were selected from the OPD of Shree Baba Mastnath Ayurvedic College, Haryana and treated with leech therapy. Clinical criteria for assessment of result were *Sandhishula* (Joint pain), *Sandhishopha* (joint swelling), *Tvakvaivarnya* (erythema), and *Daha* (burning sensation). Leech application without any medicine were applied to the patient. Leech was applied over the most tendered and painful site in each case for 20-25 minutes. Same procedure repeated after one week for total period of 4 weeks. By applying leech in *Vatarakta* significant result were obtained in *Sandhishula* 60.8% improvement. In *Sandhishopha* significant 61.5 % result were obtained. Highly significant results were obtained in *Tvakvaivarnya* 63.38% and *Sandhidaha* 66.6%. No recurrence and no complications were found during the therapy. Further study in large sample should be carried out to establish the role of said therapy in particular type of disease.

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Email: [drpkbera1984@gmail.com](mailto:drpkbera1984@gmail.com)**INTRODUCTION**

*Vatarakta* is great Medical problem throughout World. It is a great enemy in the society, because it distress the life of human being. In *Vatarakta*, both *Vata* and *Rakta* are aggravated and vitiated by their own etiological factors and ultimately *Vayu* gets obstructed by Vitiated *Rakta*<sup>(1)</sup>. The chief Complain of the patient is severe *Sandhi Shula* (Joint pain) onset on *Hasta Pada Mulagata Sandhi* and then migrates to the other *Sandhi* in a way similar to *Akhuvisha* (Rat poison)<sup>(2)</sup>. It produces various Sign and Symptoms like *Ruka* (Excruciating pain), *Swayathu* (Swelling), *Daha* (Burning Sensation), *Shyaba Rakta Varna* (Blackish red in colour), *Sparsha Asahatwa* (Touch intolerance). The sign symptoms of *Vatarakta* reveals that it is a vascular disease in which several form of grave disorder like Burgers disease, Raynods phenomena, etc, may be included. The sign symptoms of gouty arthritis can be compared with *Uttanvatarakta*. So in many of modern Ayurvedic books, gouty arthritis has been considered as *Vatarakta*. Gout is a metabolic disease that most often affects middle aged to elderly men and post menopausal women. It is typically characterized by episodic acute and chronic arthritis caused by deposition of MSU crystals in joints and connective tissue<sup>(3)</sup>. The reason behind this is faulty dietary habits, lack of physical activities, faulty sitting, sleeping position, obesity, endocrinal and genetic functions. This disorders have been considered as a disorder in which residual disabilities remain for prolong

time or life time. It leads to tremendous financial burden to our society and quality of life is affected so badly.

According to modern treatment Anti inflammatory drugs, Gluco Corticoids, are administered to treat Gouty arthritis symptomatically which have many adverse effect particularly in Renal insufficiency and Gastro intestinal disorders, making the disease chronic after prolong usage. Therefore there is definite need to explore more efficacious and radical cure to this illness. Keeping all these views in mind, a Study was planned to evaluate the therapeutic effect of leech therapy (*Jalauka* treatment) in the case of *Vatarakta* (Gout). So many clinical studies on this same topic has been carried out and published in different journals<sup>(4)</sup>. but I tried to relieve acute condition of this disease without any medicine.

**Purpose of the Study:**To prove the efficacy of leech therapy in *Vatarakta*.**Material and Methods****Study area :** OPD of Shree Baba Mastnath Ayurved College, Asthalbohar, Rohtak, Haryana.**Sample Size :** 10 Patients**Inclusion criteria**

1. Patients age between 18- 50 Years
2. Patient not having any other Systemic Diseases
3. Bleeding time and Clotting time within normal limit

4. Patient having Haemoglobin 10 gm% or above.
5. Patient not on any Anticoagulant Drug
6. Serum Uric acid level less than or equal to 7 mg/dl

**Exclusion Criteria**

1. Patient age below 18 & above 50 years
2. Patient with Haemoglobin less than 10 gm%
3. Patient having Uric acid level more than 7 mg / dl.
4. Patient with H/O Trauma.

**Clinical Criteria****Subjective****Sandhishula (Join it pain)**

No Pain	:	0
Occasionally pain	:	1
Moderate pain	:	2
Severe pain	:	3

**Sandhi Shopha (joint swelling)**

No oedema	:	0
Occasional oedema	:	1

**Sandhivaivarna (joint erythema)**

No erythema	:	0
Mild erythema	:	1
Moderate erythema	:	2
Severe erythema	:	3

**Objective parameters**

Investigations like Hb%, ESR, Uric acid

**Treatment plan :** Leech application was done each and every patient with 7 days interval for a period of 30 days. Total 4 sitting were performed. After leech application *Shatadhoutaghrita* was applied. No allopathy and herbal medicine was given during treatment.

**Study Period:** One month

**Diagnostic criteria:**

**Subjective criteria:** *Sandhishula*, *Sandhishopha*, *Tvakvaivarnya*, and *Daha*.

**Objective criteria:** haemoglobin, ESR, And uric acid were assessed

**Dropout :** Nil

**Materials required for application of leech**

- *Jalauka* or non poisonous leech 3-5 in number
- *Haridra* powder (*Curcuma longa*)
- Rock salt
- *Madhuyasthi* powder
- *Shatadhautaghrita*
- Kidney tray
- Gloves
- Table

- Leech holding forceps
- Needle

**Method of Leech application**

Active leeches should be take and applied on the most painful, affected part with the help of fingers. To make the leech more active medium sized Kidney tray with water is taken and mixed with about one spoon of *Haridra* powder.<sup>(5)</sup>

**Mechanism of Action**

The main pathology of this disease is *Marga Avarodh*. Leech removes *Srotodusti* as it first sucks the vitiated blood resulting pacification of *Vata*. Once *Vatadosa* in balance and vitiation is removed then pain and other symptoms will automatically relieved.

**Case Study**

10 patients of aged between 32- 48 years out of which 4 were female were selected randomly from the OPD of Shree Baba Mastnath Ayurvedic College, Haryana with complains of severe pain, tenderness, Redness, Swelling at the base of Great Toe. The patient were examined thoroughly and investigated Hb%, ESR, BT, CT, Uric acid level.

**Leech application procedure:**

- Supine position
- Most painful and tender body part were selected
- Leech applied over the affected part by picking up with the help of thumb and index finger with gauze piece.
- Leech starts to suck the blood
- If fails to attach itself to the skin then other leech is applied or puncture is made with a needle on the site to make it bleed and leech is reapplied

**Observation of patient**

The development of itching as well as pain at the site of sucking signifies that now leech has started sucking the pure blood. Therefore leech has to be removed by dusting the rock salt or *Haridra* powder.

**Care of wound**

As the saliva of leech contains hirudin, an anticoagulant, even after leech gets separated from the site, bleeding continues for a prolonged period. Therefore as soon as leech get separated, *Shatadhoutaghrita* and *Madhuyasthi* powder were applied over wound site.

**Observation and result**

All 10 patients completed the trial successfully. All received data were statistically analysed. Results obtained in subjective criteria are as follows :

Sub. Criteria	Mean BT	Mean AT	Difference of Mean	Percentage of relief	SD	SE	t value	P value
<i>Sandhishula</i>	2.3	0.9	1.4	60.8 %	0.69	0.22	6.12	<0.001
<i>Sandhishopha</i>	2.6	1	1.6	61.5%	0.51	0.16	6	<0.01
<i>Tvakvaivarna</i>	2.6	0.9	1.7	65.3%	0.82	0.26	7.05	<0.001
<i>Daha</i>	2.6	0.8	1.6	66.6%	0.63	0.16	6.9	<0.001

**Objective parameters**

Investigation	Mean BT	Mean AT	Difference of mean	Percentage of relief	SD	SE	t value	P value
Hb	11.3	10.5	0.8	6.15	0.94	0.30	1.863	<0.005
ESR	34	15.1	18.9	55	11.5	3.6	4.975	<0.01
Uric acid	13.6	13	0.6	4.4	5.42	1.71	0.25	<0.05

**DISCUSSION**

*Vatarakta* is a disease in which both *Vata* and *Rakta* are vitiated. *Raktamokshana* is included in *Shodhanachikitsa* by Acharya Sushruta and Acharya Vagbhatta looking into the importance of *Rakta* in the manifestation of disease. Application of leeches removes not only blood from the body but also injects biologically active substances which help to manage various ailments. According to Ayurvedic view, disease are occurred by vitiation of *Dosa* can get accumulated in *Srotas*, cause blockages and may lead to diseases. *Jalaukacharana* is one of the oldest method used in purification of the body by removing deeply seated toxins and pacifying *Vatadosa*.

As *Jalauka* lives in cold water and *Madhurrasatmak*, so it is used in *Pitta vyadhi*. The proportion of *Pitta* and *Rakta* are very similar. So it can be used in *Raktadusti*.

As per modern view, secretion of salivary glands of non poisonous leech contain more than 100 bio active substance and has anti oedematous, bacteriostatic, analgesic and resolving action. It eliminates micro-circulation disorder, restores damaged vascular permeability of tissues and organ<sup>(6)</sup>.

By applying leech in *Vatarakta* significant results were obtained in *Sandhishula* with 60.8% improvement. In *Sandhishopa* significant 61.5% result were observed. Highly significant result were obtained in erythema and *Sandhidaha* 65.38% and 66.6% respectively. But Hb% and serum uric acid level show non-significant result. Highly significant results were obtain in ESR which is one of the inflammatory marker. Here leech has potent histamine like powerful vasodilator agent present in saliva which acts as an anti inflammatory and therefore reducing pain.

**CONCLUSION**

It can be concluded from current research project that.

1. Based on symptomatology Gouty arthritis can be compared with *Vatarakta*.
2. Leech therapy can be ideal management in acute gouty arthritis.
3. Study has not shown any side effect.

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